

Today's Fruits and Vegetables Lack Yesterday's Nutrition

EDITORS NOTE: *"Following on the heels of the American Medical Association's acknowledgement for the need to supplement our diet in order to prevent many diseases, these combined reports are a powerful wake up call to all who wish to protect their health long term".*

Courtesy of: The Globe & Mail - Andre Picard Reporting

Fruits and vegetables sold in Canadian supermarkets today **contain far fewer nutrients than they did 50 years ago**, according to an analysis conducted by **The Globe and Mail** and **CTV News**.

Take the potato, by far the most consumed food in Canada. The average spud has lost 100 per cent of its vitamin A, which is important for good eyesight; 57 per cent of its vitamin C and iron, a key component of healthy blood; and 28 per cent of its calcium, essential for building healthy bones and teeth.

It also lost 50 per cent of its riboflavin and 18 per cent of its thiamine. Of the seven key nutrients measured, only niacin levels have increased.

The story is similar for 25 fruits and vegetables that were analyzed. But Health Canada refused to comment on the findings, saying the debate was an academic one. The academics, for their part, are intrigued, but not alarmed.

Modern farming methods, long-haul transportation and crop-breeding practices are all believed to be contributing to the drop in vitamins and minerals.

Phil Warman, an agronomist and professor of agricultural sciences at Nova Scotia Agricultural College, said there is no doubt the nutritional content of food is different today, due to the emphasis on producing cheap food. "The emphasis is on appearance, storability and transportability, and there has been much less emphasis on the nutritional value of fruits and vegetables," he said.

Dr. Warman said crops are bred to produce higher yields, to be resistant to disease and to produce more visually attractive fruits and vegetables, but little or no emphasis is placed on their vitamin or mineral content.

While there is little evidence, anecdotal or otherwise, that the changes are resulting in major nutritional deficiencies in the general population, Dr. Warman emphasized that consumers should care about the issue because it is the nutrients, not the appearance, that give food value.

"I care because I want to eat a product that is as high in nutritional value as possible. Otherwise, I would eat sawdust with nitrogen fertilizer," he said.

Tim Lang, a professor at the Centre for Food Policy in London, England, agreed. "It's an issue of consumer rights," he said. "We think of an orange as a constant, but the reality is it isn't."

In fact, **you would have to eat eight oranges today to get the same amount of vitamin A your grandparents got from a single orange.** And you would need to eat five to get the same level of iron. However, the amount of vitamin C has increased slightly.

Dr. Lang said declining nutrient levels may prove to be a health issue because we are only beginning to understand how important micronutrients are to disease prevention. "The argument that it doesn't matter because we over consume is complacent. . . . Nutrient density might also be important."

Alison Stephen, director of research at the Heart and Stroke Foundation of Canada, said the biggest nutritional problem is that most Canadians do not eat anywhere near the recommended five to 10 servings of fruits and vegetables daily.

But she is not unduly worried about today's consumers failing to get their required vitamins and minerals. "A lot of our foods today are fortified — milk, bread, apple juice, cereal," she said. In other words, grains and dairy products are far more important sources of essential nutrients than they were in the past.

To conduct the analysis, The Globe and Mail and CTV examined food tables that were prepared by government researchers in 1951, 1972 and 1999, and compared the nutrients available from 100 grams of the given food.

The results were almost identical to similar research conducted in the United States and Britain. The U.K. research was published in the British Food Journal, a peer-reviewed, scientific publication, while the U.S. data have been published only in alternative-health journals.

According to the Canadian data, almost 80 per cent of foods tested showed drops in calcium and iron; three-quarters saw drops in vitamin A, and half lost vitamin C and riboflavin; one-third lost thiamine and 12 per cent lost niacin. But some experts said the explanation for the decline might be found in testing and sampling methods.

Len Piché, an associate professor of nutrition at Brescia College in London, Ont., questioned the accuracy of the numbers, saying testing methods were not great in 1951, so we may only now be getting a true idea of the nutrients in fruits and vegetables. "Did they really go down, or do we just have better techniques for analyzing those nutrients?" he wondered.

However, Dr. Piché said the issue is one Health Canada should examine. "If there's a problem, I'm confident the government will take it seriously and do the necessary research to address it," he said.

In the analysis, the biggest loser was broccoli, a food that epitomizes the dictates of healthy eating. All seven of its measurable nutrients declined, notably calcium, which fell 63 per cent, and iron, which dropped 34 per cent. Broccoli is often cited as an excellent source of calcium and iron.

Experts Say Nourishment Needs Boost, No Matter How Careful People Are About Their Diets

If the nutrient content of fruits and vegetables is falling -- as research suggests -- it raises the question: **Should everyone take nutritional supplements to make up for shortcomings?**

"Absolutely," said Aileen Burford Mason, a biochemical nutritionist and a Toronto-based nutrition counsellor. "Taking a multivitamin is risk-free and could have tremendous benefit."

Dr. Burford Mason stresses that eating well is essential and that supplements are precisely that -- complementing good food choices, not substituting for them.

But, as someone who has spent her career studying the importance of various micronutrients for overall health, she is also adamant that, no matter how careful people are about their diet, they need help from supplements.

"When I hear people say: 'You can get all the nutrients you need from food,' I ask them: 'Where is there a shred of evidence that is true?' They are in denial.

"No matter how well we eat, it's not possible to get adequate nutrition."

While that seems like a radical notion, it has increasing support in the nutrition community. In recent years there has been a raft of evidence about the importance of basic vitamins and minerals for long-term health.

It used to be thought that supplements were necessary only to avoid exotic diseases such as scurvy, beriberi and rickets.

But today it is believed that common killers such as cardiovascular disease and cancer may have their roots in nutrient deficiencies.

Research into this area began in earnest after it was discovered that a deficiency of a seemingly innocuous nutrient, folic acid (or folate) caused the devastating birth defects spina bifida and anencephaly. A little extra folic acid may also reduce the risk of heart disease and cancer in adults, particularly if they drink alcohol (which robs the body of the nutrient).

Walter Willett, author of the seminal work *Eat, Drink and Be Healthy*, said the research suggests that taking supplements (in addition to eating well) "could substantially improve our long-term health."

Dr. Willett, chairman of the department of nutrition at the Harvard School of Public Health, said the Canada Food Guide should include a recommendation that supplements be included as part of a healthy diet.

He said the five nutrients that people don't get enough of in their diets are folic acid, vitamin B6, vitamin B12, vitamin D and vitamin E. These can all be found in a standard multivitamin, though he suggests that men and postmenopausal women should take an additional vitamin E supplement.

He calls a daily multivitamin a good, cheap insurance policy.

According to a survey commissioned by the Canadian Health Food Association, however, only 30 per cent of adults take a daily supplement -- even though two-thirds of respondents feel that Canadians, in general, are not receiving enough nutrients in food.